Meeting Notes
California State Lands Commission
Performance Standards Technical Advisory Panel Meeting #1
Monday, March 7, 2005

Meeting Attendance

John Berge - Pacific Merchant Shipping	Steve Moore - CA State Water Board (Region 2)
Brad Chapman – Chevron Texaco Shipping	Greg Ruiz - SERC (Conference Line)
Maurya Falkner – CSLC	Lisa Swanson - Matson Navigation
Steve Foss - CA Department of Fish & Game	Mark Systma - OSU (Conference Line)
Suzanne Gilmore – CSLC	Lynn Takata - CSLC
Giselle Johnston – CSLC	Drew Talley - SFSU
Jackie MacKay – CSLC	Kim Ward - SWRCB (Water Quality Division)

Action Items

- Distribute exact language of Public Resources code section 71204.9 to advisory panel
- Research performance standards in place by New Zealand & Australia programs
- Determine if S.B 363 pre-empts state jurisdiction
- Greg Ruiz to present at the next meeting on organism density studies in ballast water
- Get information on risk based standards from the Australia program
- Get information on the process for setting water quality and air quality standards
- Find out what countries have signed on to the IMO
- Find out who is monitoring countries with standards in place, who is collecting the data?

Introductions & Overview of Agenda

Advisory Panel Objectives and Process
Advisory panel objectives were summarized and discussed as stated in Public Resources Code Section 71204.9. By January 31, 2006 the CA State Lands Commission (CSLC) in consultation with the State Water Resources Control Board, and in consideration of the advisory panel recommendations, submit a report to the Legislature with recommendations on specific performance standards for the discharge of ballast water into CA waters. The exact language of section 71204.9 will be provided to advisory panel participants.

A general process was briefly outlined for the performance standards advisory panel. The panel will use a step-wise model to: 1) Exchange and share information, 2) Clarify issues and interests, 3) Develop/refine options, and 4) Reach agreements to formulate recommendations.

The tentative timeline for advisory panel meetings will be Monday March 7th, Wednesday April 27th, Tuesday May 31st, and then Wednesday June 15th only if needed. Advisory panel is to submit their recommendations to the CSLC by July 1, 2005. Final report will be submitted by CSLC staff to the Legislature on or about 1/31/06. It was noted that these will be two separate reports; one report will compile recommendations by the advisory panel and CSLC staff with consideration of advisory panel recommendations will write the second report to the Legislature.

Status of Current Regulations
The United States Coast Guard (USCG) is in the process of preparing a rulemaking package to establish national performance standards for ballast water discharges. Until the rulemaking process is complete, the proposed standards are not available for public review. Their regulatory package should be public record in the winter of 2006. Advisory panel participants agreed that the USCG performance standards should be considered during the process as much as possible to encourage

consistency at a national level and across the pacific coast region. On an informal basis, the panel will seek guidance and review from the USCG as recommendations are developed.

In California, currently no action is being taken by the Legislature regarding performance standards. Recommendations on performance standards will be submitted in January of 2006 for review by the Legislature.

Oregon has little interest in setting performance standards at a state level without the federal program in place. It is unlikely that Oregon will establish independent standards for the discharge of ballast water in advance of the USCG.

Washington has established performance standards effective July 1, 2007 with a 95% removal for zooplankton and a 99% removal for phytoplankton and bacteria.

S.B. 363 (Inouye) was introduced in February 2005 to the senate and has more stringent standards than the IMO convention approved in early 2004. Panel participants are curious to know if the Inouye bill pre-empts states. The rationale used to determine these proposed standards was discussed in terms of biology or technology. To date, it is unknown whether this bill will be ratified or thrown out.

It was suggested the advisory panel also review and consider ballast water programs with respect to standards for Canada, New Zealand, and Australia where possible.

A few questions were raised about the rational of how standards are developed. Participants would like to know if standards in other programs were established in terms of biologic parameters, capability of technology, or with other reasoning.

Issues of Interests

Several suggestions were made to help build knowledge about the context of developing performance standards. We will try to arrange for Greg Ruiz of the Smithsonian Environmental Research Center to provide background information on the density of organisms in ships for zooplankton. It would be helpful to locate similar information for phytoplankton and bacteria. Background studies would also be useful on exchange efficacy with a rate for reduction of invasion, although comments suggest that a few such studies have been conducted on the Great Lakes but are difficult to interpret.

A question was raised regarding the establishment of a shore-side test facility for treatment technology evaluation. This will be far into the future if and when an approved system is readily available. Unless there is a well funded centralized program, it will be very difficult to facilitate a treatment system becoming commercially available. Most participants agreed that this effort should come from the Federal government. The USCG's STEP may be the beginning, providing an example of how this might work. A suggestion was made for CSLC to work with the USCG and to check out other programs (such as Great Britain) to see how they verify the efficacy of treatment technology.

Discussion took place on how best to combine biological aspects with what is technically feasible. It was suggested that both are necessary. We need to work with biological endpoints to determine what is biologically feasible. In other words, we need to take scientific information and fit it into the biological framework. Above all, having consistent regulations will be extremely important when doing this.

A brief discussion on how to develop risk based standards occurred. It was concluded that this process is difficult to do. It is apparent that some species are higher risk than others, but it is difficult to determine which species and to what degree of risk they may pose to receiving waters. Relative

sensitivity and risk will inherently depend on receiving waters and species type. This can be problematic when attempting to make regulations consistent. A one size standard will likely not work, and although risk based standards may be difficult to develop, risk based is possibly the most feasible solution.

Current efforts to develop performance standards for ballast water discharges seem to focus on water quality based standards. Many limitations are imposed by the absence of available technology. One scenario discussed would be to apply the clean water act to ballast water regulations. The same standards established in the 70's for the clean water act continue to apply today.

Main points Issues of Interest:
- General information on exchange efficacy and inoculation capabilities
- A shore based test facility is needed to test treatment efficacy likely to be federal
- Consistency of performance standards among USCG, IMO, and California is important
- Explore how standards would be based on either technology or biology
- Explore how we might approach risk based standards
- Explore the clean water act to help establish standards

Group Discussion
It is projected that ballast water exchange will be the standard for the next 10 years. This is because technology is not available yet or not in place at this time. A few vessels have been retrofitted alternative treatment technologies, but these systems continue to be evaluated and are not commercially available. More information will be necessary for any one of these systems to gain approval and then become available for commercial production.

Some discussion took place to explore what will help move the standard forward. This raised the question of how the IMO standard will compare to the USCG standard, which is expected to become public information in the winter of 2006. Before the next meeting, we will do some searching to find out what countries have signed on the IMO standard so far. Brazil and Spain are two confirmed. Now that IMO has had standards established for a year, are there data available? Who is collecting the data on discharges in the countries that have signed on? Who is measuring the outputs? Are these countries collecting bench scale data? Are there relationships with universities?

Several points were raised which need to be addressed in the future. Considering coastwise traffic may create a unique situation with regard to performance standards. So far, treatment technologies are often more successful over longer voyages versus shorter coastwise voyages. The longevity of ship life and the potential for phased standards was brought up as a future discussion topic. For example, if a ship is fit with an expensive treatment system, and the standards are set, what if these treatments are not applicable later? Also, how will new versus existing vessels be regulated? The standards will need to recognize differences in vessel voyage length, vessel age, etc.

A suggestion was made to invite representatives from the technology industry. General consensus was that we don't want to invite vendors, but it may be useful to confer with their expertise in the future as standards are developed. Representation from the EPA was also suggested for the panel, and we will check to see if there may be a contact in ballast water management.

Adjourn: 12:00 pm